

NEW BRAKE DESIGN

For

C-FACE Motors from **3 hp - 30 hp**

NEMA Frame Motors **182TC - 256TC**



GEN II

70 SERIES DOUBLE C FACE BRAKE

The Next Generation in Direct-Acting Brakes

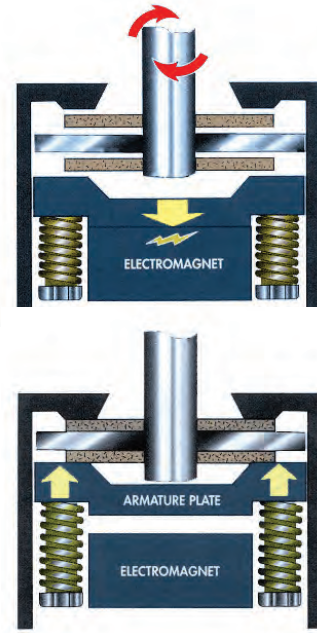
DIRECT REPLACEMENT
for Stearns® 87,700 Series Brakes

DINGS' TRADITIONAL DIRECT-ACTING DESIGN

Dings brakes operate on a very simple principle: while the motor is running with power engaged, an electromagnet within the brake pulls back the pressure plate, allowing the friction discs and motor shaft to rotate freely. When power is cut to the motor, the electromagnet releases, instantly stopping the rotating discs and preventing the motor shaft from turning. This design has these advantages:

- One moving part
- No complicated linkages to break or fail
- Fail safe - spring-set design
- No complicated hydraulics or pneumatics

Dings direct-acting design provides **years of trouble-free performance.**

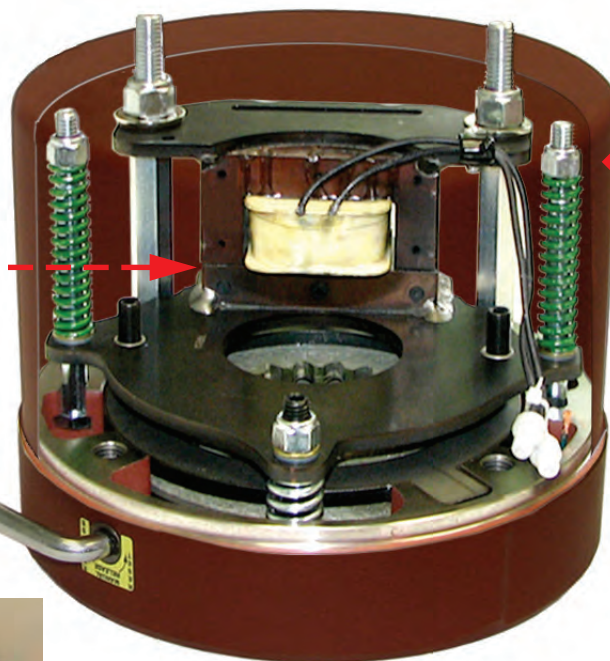


WITH MORE... FEATURES

- Direct replacement for STEARNS® 87,000 Series
- No disassembly required for mounting
- External manual release with auto reset
- One moving part for longer life
- Splined hub
- Torque adjustable
- RoHS Compliant
- All position brake available



Small air gap - one moving part, increases brake life

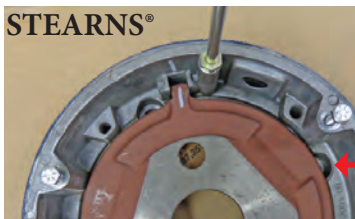


Simple torque adjust

External side manual release with automatic reset



Accessible mounting holes for easy mounting- No need to disassemble brake to attach to motor



Competitor brakes require disassembly of the brake for mounting to motor no access to mounting holes

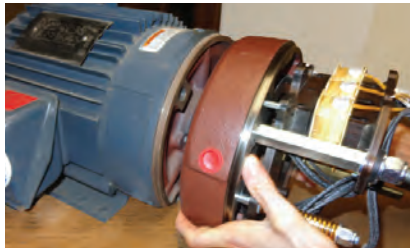


FASTER... **INSTALLATION**

DINGS design allows access to the mounting holes, so NO disassembly is required for mounting. Competitor brakes require disassembly before mounting.



1. Place and secure brake hub on motor shaft



2. Place brake over hub and bolt to motor



3. Place brake housing / shaft assembly onto brake.

4. (Not shown) Line up and insert the shaft end of the brake/motor combination into the gear box or transmission component "C" face flange and insert and install mounting bolts.

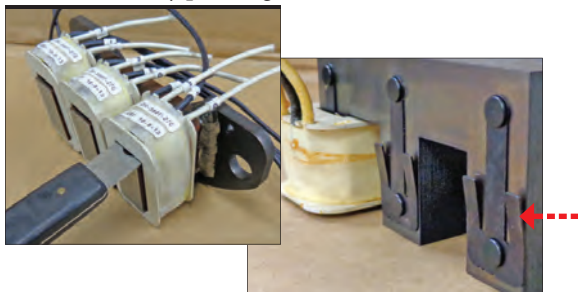


5. Replace brake wrap cover & wire brake coil

EASIER... **MAINTENANCE**

EASY to access parts for maintenance. NEW easily removable coils when source voltage changes.

Remove coils by pressing on tabs



Torque adjustable
Using torque adjust nuts



Simple air gap adjustment



ADDED... **FLEXIBILITY**

Interchangeable with Dings current designs or Stearns® 87,000 Series brakes.

70 Series Double C Face

Drip-proof NEMA 2, CSA 2, IP43 Enclosure

Torque: 10 to 105 lb-ft

Specifications & Dimensions

NEMA Frame sizes 182TC through 256TC/UC

AK: 8.5" Register

AJ: 7.25" Bolt Circle

Maximum RPM: 3600

CSA File #LR13814

RoHS Compliant

Coil insulation: Class H standard

External paint: Red primer

Lead wires: Internal or conduit connections

Nameplate: Mylar with removable protective film

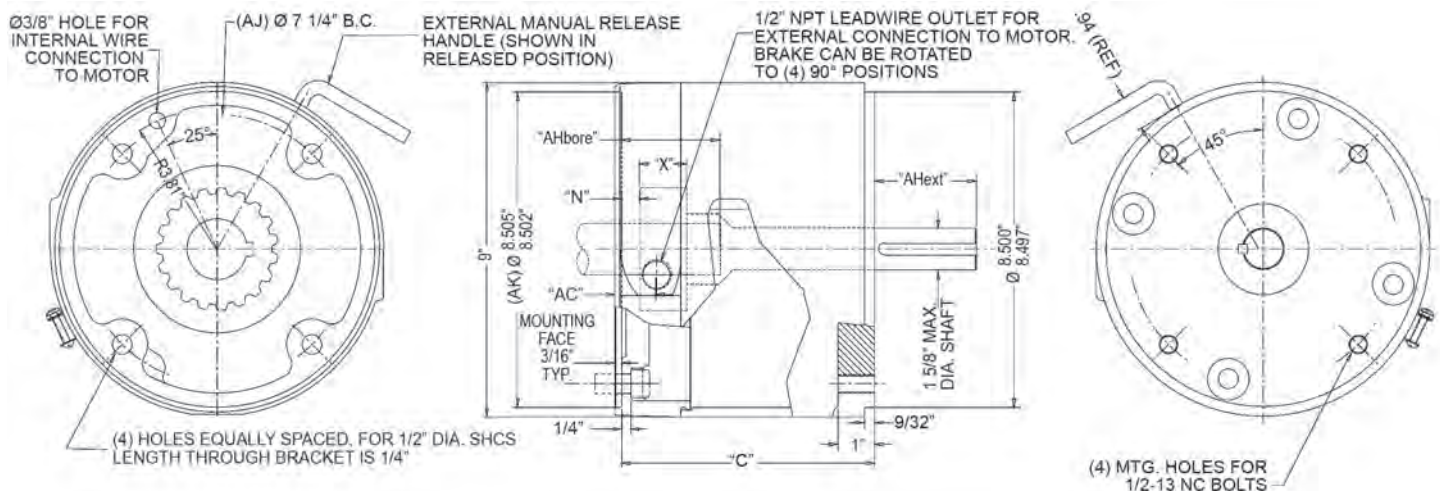


NEMA 2 / IP43 Enclosure

Construction: Cast Iron Bracket, Aluminum Housing

Torque lb-ft	Dings Model #	Replaces Stearns® Model (NOTE1)	Thermal Capacity HPS/MIN	Inertia Wk ² lb-ft ²	Dimensions in inches				AHbore Max Motor Shaft Length			AHext Brake Shaft Extension Length			List Price
					C	X	AC	N	1.125 Dia	1.375 Dia	1.625 Dia	1.125 Dia	1.375 Dia	1.625 Dia	
10	71010-CE42	1-087-711	10	0.055	7.53	1.00	1.13	0.13							\$2,375
15	71015-CE42	1-087-721	10	0.055	7.53	1.00	1.13	0.13							\$2,400
25	72025-CE42	1-087-731	11	0.076	7.53	1.00	1.13	0.13	2.63	3.13	N/A				\$2,450
35	72035-CE42	1-087-741	11	0.076	7.53	1.00	1.13	0.13				2.63	3.13	3.75	\$2,600
50	72050-CE42	1-087-751	11	0.076	7.53	1.00	1.13	0.13							\$2,750
75	74075-CE41	1-087-761	13	0.145	8.66	2.38	2.25	0.50	3.75	3.75	3.75				\$2,795
105	74105-CE41	1-087-781	13	0.145	8.66	2.38	2.25	0.50							\$3,100

NOTE 1: Hub length and location may differ.



Stearns® is a registered trademark of Rexnord Corporation.

70 Series Double C Face

NEMA 4 / IP56 , CSA4 Enclosure

Torque: 10 to 105 lb-ft

Specifications & Dimensions

NEMA Frame sizes 182TC through 256TC/UC

AK: 8.5" Register

AJ: 7.25" Bolt Circle

Maximum RPM: 3600

CSA File #LR13814

RoHS Compliant

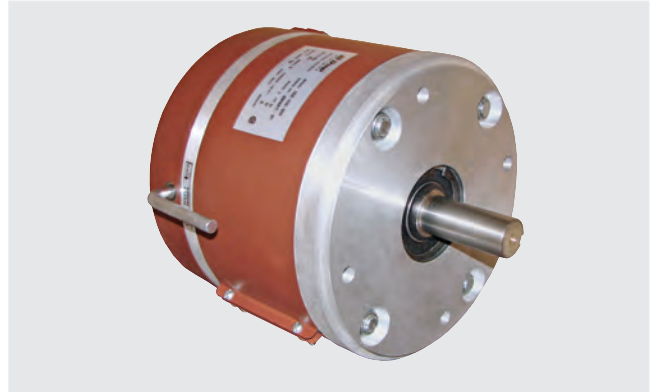
Coil insulation: Class H standard

Enclosure: Cast iron

External paint: Red primer

Lead wires: Conduit connections

Nameplate: Etched stainless steel

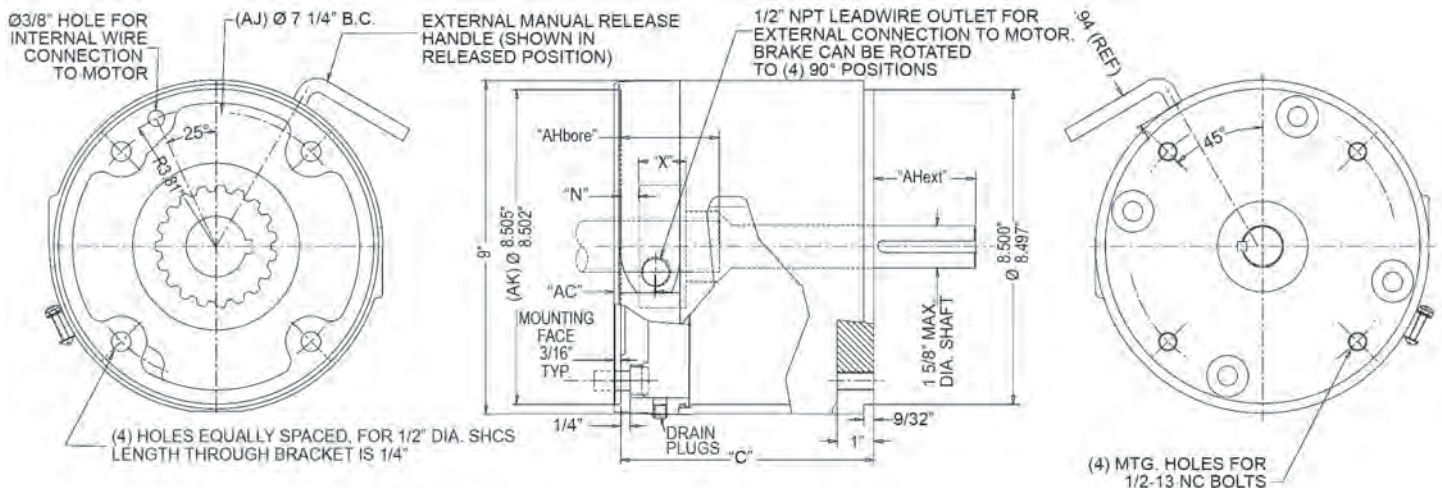


NEMA 4 / IP56 Enclosure

Construction: Cast Iron Bracket, Aluminum Housing

Torque lb-ft	Dings Model #	Replaces Stearns® Model (NOTE1)	Thermal Capacity HPS/MIN	Inertia Wk ² lb-ft ²	Dimensions in inches				AHbore Max Motor Shaft Length			AHexl Brake Shaft Extension Length			List Price
					C	X	AC	N	1.125 Dia	1.375 Dia	1.625 Dia	1.125 Dia	1.375 Dia	1.625 Dia	
10	71010-CE62	1-087-712	10	0.055	7.53	1.00	1.13	0.13	2.63	3.13	N/A	2.63	3.13	3.75	\$2,925
15	71015-CE62	1-087-722	10	0.055	7.53	1.00	1.13	0.13							\$2,975
25	72025-CE62	1-087-732	11	0.076	7.53	1.00	1.13	0.13							\$3,050
35	72035-CE62	1-087-742	11	0.076	7.53	1.00	1.13	0.13							\$3,200
50	72050-CE62	1-087-752	11	0.076	7.53	1.00	1.13	0.13							\$3,350
75	74075-CE61	1-087-762	13	0.145	8.66	2.38	2.25	0.50	3.75	3.75	3.75			\$3,395	
105	74105-CE61	1-087-782	13	0.145	8.66	2.38	2.25	0.50						\$3,500	

NOTE 1: Hub length and location may differ.



Stearns® is a registered trademark of Rexnord Corporation.

70 Series Double C Face

NEMA 4 / 4X, IP56 , CSA4 Enclosure Torque: 10 to 105 lb-ft

Specifications & Dimensions

NEMA Frame sizes 182TC through 256TC/UC

AK: 8.5" Register

AJ: 7.25" Bolt Circle

Maximum RPM: 3600

CSA File #LR13814

RoHS Compliant

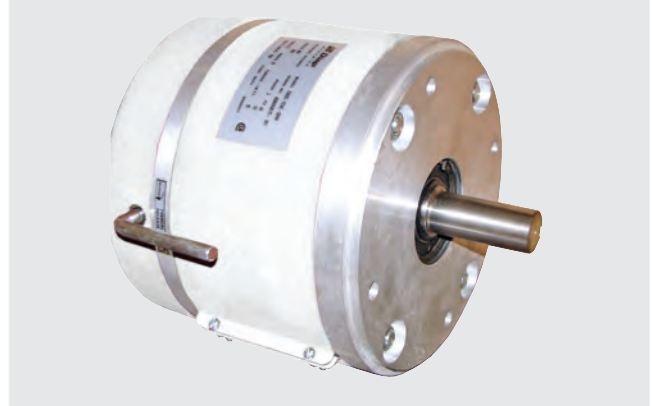
Coil insulation: Class H standard

Enclosure: Cast iron

External paint: FDA approved white epoxy

Lead wires: Internal or conduit connections

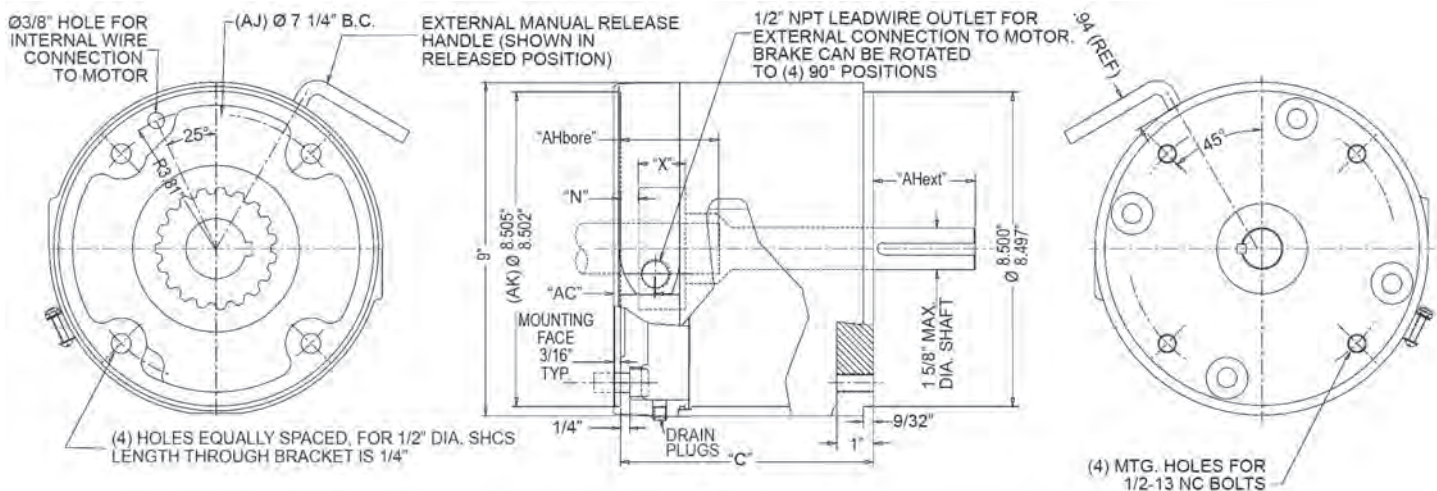
Nameplate: Etched stainless steel



NEMA 4X / IP56 Enclosure Construction: Cast Iron Bracket, Aluminum Housing

Torque lb-ft	Dings Model #	Replaces Stearns® Model (NOTE1)	Thermal Capacity HPS/MIN	Inertia Wk ² lb-ft ²	Dimensions in inches				AHbore Max Motor Shaft Length			AHext Brake Shaft Extension Length			List Price
					C	X	AC	N	1.125 Dia	1.375 Dia	1.625 Dia	1.125 Dia	1.375 Dia	1.625 Dia	
10	71010-CE64	1-087-712	10	0.055	7.53	1.00	1.13	0.13	2.63	3.13	N/A	2.63	3.13	3.75	\$3,180
15	71015-CE64	1-087-722	10	0.055	7.53	1.00	1.13	0.13							\$3,230
25	72025-CE64	1-087-732	11	0.076	7.53	1.00	1.13	0.13							\$3,305
35	72035-CE64	1-087-742	11	0.076	7.53	1.00	1.13	0.13	3.75	3.75	3.75	2.63	3.13	3.75	\$3,455
50	72050-CE64	1-087-752	11	0.076	7.53	1.00	1.13	0.13							\$3,605
75	74075-CE63	1-087-762	13	0.145	8.66	2.38	2.25	0.50	3.75	3.75	3.75	2.63	3.13	3.75	\$3,650
105	74105-CE63	1-087-782	13	0.145	8.66	2.38	2.25	0.50							\$3,755

NOTE 1: Hub length and location may differ.



Stearns® is a registered trademark of Rexnord Corporation.

70 Series Double C Face

BRAKE SELECTION GUIDE

① Select Model

Dings Standard Models		Stearns® Replacement Models	
Torque lb-ft	Model #	Torque lb-ft	Model #
10	71010	10	71010
15	71015	15	71015
25	72025	25	71025
35	72035	35	72035
50	73050	50	72050
75	74075	75	73075
105	74105	105	74105

② Select Enclosure Type & Hub/Shaft Design

Enclosure Type	Hub / Shaft	Model #
NEMA 2 / IP43	2-piece	CE42
NEMA 2 / IP43	1-piece	CE41
NEMA 4 / IP56	2-piece	CE62
NEMA 4 / IP56	1-piece	CE61
NEMA 4X / IP56	2-piece	CE64
NEMA 4X / IP56	1-piece	CE63

NOTE: The brake torque rating and number of friction discs dictate the hub/shaft design

③ Select Voltage

Standard Voltages	
Suffix	Voltage
Y	110/220V, 50Hz
U	230/460V, 60 Hz or 190/380V, 50 Hz
5	208-230/460V, 60 Hz
R	115/230V, 60 Hz
1	115/208-230V, 60 Hz
T	220/440V, 60 Hz
P	575V, 60 Hz

7 2 0 2 5 - C E 6 2 - U 3 K K - V O R

④ Select Phase

Suffix	Phase
1	Single Phase
3	Three Phase

⑤ Select Hub Bore

Standard Bore & Shaft Sizes		
Suffix	Bore Size	Keyway
H	1 1/8"	1/4" x 1/8"
K	1 3/8"	5/16" x 5/32"
M	1 5/8"	3/8" x 3/16"

⑥ Select Shaft Diameter

Standard Bore & Shaft Sizes		
Suffix	Bore Size	Keyway
H	1 1/8"	1/4" x 1/8"
K	1 3/8"	5/16" x 5/32"
M	1 5/8"	3/8" x 3/16"

⑦ Select Options

Suffix	Option Description
H	Heavy-Duty Rotating Friction Disc with Hardened Steel Hub
M	Marine/Maritime Duty with MIL-SPEC paint per TT-P-645 & MIL-DTL-15090
N	Marine/Maritime Duty - Plated or painted internal parts & exterior painted with special high solid epoxy paint (non-military)
P	Tropical Protection for Coil(s)
R	Internal Space Heater
S	Stainless Steel Stationary Disc
VO	Vertical Mounting, over motor
VU	Vertical Mounting, under motor
XS	Micro-Switch Warning

70 Series Double C Face

ENCLOSURES

The IP Code, International Protection Marking, IEC Standard 60529, classifies and rates the degree of protection provided against the intrusion of dust and water by electrical enclosures. This rating system is published by the International Electromechanical Commission (IEC).

DINGS VS. STEARNS® ENCLOSURE RATINGS

Dings Drip-proof Enclosure = IP43 Standard / Stearns® Drip-proof Enclosure = IP23 Standard

Dings Waterproof Dust-tight = IP56 Standard / Stearns® Waterproof Dust-tight = IP54 Standard

First Digit: Solid Particle Protection

The first digit indicates the level of protection that the enclosure provides against access to hazardous parts (e.g., electrical conductors, moving parts) and the ingress of solid foreign objects.

Level	Object size protected against	Effective against
2	>12.5mm	Fingers or similar objects.
4	>1mm	Most wires, screws, etc.
5	Dust Protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact.
6	Dust Tight	No ingress of dust; complete protection against contact.

Second Digit: Liquids

Protection of the equipment inside the enclosure against harmful ingress of water.

Level	Protected against	Testing for	Details
3	Spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.	Test duration: 5 minutes Water volume: 0.7 litres per minute Pressure: 80–100 kPa
4	Splashing of water	Water splashing against the enclosure from any direction shall have no harmful effect.	Test duration: 5 minutes Water volume: 10 litres per minute Pressure: 80–100 kPa
5	Water jets	Water projected by a nozzle (6.3 mm) against enclosure from any direction shall have no harmful effects.	Test duration: at least 15 minutes Water volume: 12.5 litres per minute Pressure: 30 kPa at distance of 3 m
6	Powerful water jets	Water projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction shall have no harmful effects.	Test duration: at least 3 minutes Water volume: 100 litres per minute Pressure: 100 kPa at distance of 3 m

BRAKE TESTING SUMMARY

Dings design and test engineers have performed a series of brake performance tests in order to refine the design. Tests included cycle tests to achieve maximum brake life and torque tests under load conditions to determine friction disc wear rate.

TEST DETAILS

- Quantity of brakes tested : over 100
- Cycle test: 25 lb-ft, 50 lb-ft and 75 lb-ft brakes
- Torque test : 25 lb-ft and 75 lb-ft brakes tested for friction disc life at 100% capacity

TEST RESULTS

- Cycle test: 3 million cycles with ZERO failures
- Torque test:

# Friction discs per brake	1	2	3	4
Average cycles before reaching max air gap	60K	50K	40K	40K
Average number of air gap adjustments before friction disc replacement	3	5	10	15

NOTE: Your wear rate may differ due to change in speed, load, over-hanging load and cycle rate.